

SPECIFICATION

A SEMICONDUCTOR DEVICE AND A METHOD OF MANUFACTURING THE SAME

[0001] This application is a Division of U.S. Appln. Ser. No. 10/194,224, *Pat. 6,684,663*
filed July 15, 2002, which, in turn, is a Continuation of U.S. Appln. Ser. No. 09/769,359, filed January 26, 2001, now U.S. Patent No. 6,538,331, the entire disclosures of which are hereby incorporated by reference.

FIELD OF THE INVENTION

[0002] The present invention relates to a semiconductor device, and to a technique for manufacturing the same; and, more particularly, the invention relates to a technique which is effective when applied to a semiconductor device having a plurality of semiconductor chips stacked therein, and which is resin-sealed in a single package.

BACKGROUND OF THE INVENTION

[0003] As one of the measures for increasing the capacity of a memory LSI, such as a flash memory or a DRAM (dynamic random access memory), a variety of memory module structures, which are manufactured by stacking semiconductor chips, each having such a memory LSI formed thereon, and then sealing them in a single package, have been proposed.

[0004] For example, Japanese Patent Application Laid-Open No. Hei 4(1992)-302164 discloses a package structure obtained by stacking, stepwise, in one package, a plurality of semiconductor chips having the same function and the same size via an insulating layer, and electrically connecting a bonding pad which is exposed at the stepped portion of each of the semiconductor chips with an inner lead of the package through a wire.